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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/550,147

09/21/2005

Mitsunari Suzuki

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25944 7590 02/13/2008
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EXAMINER

RUTLAND WALLIS, MICHAEL

ART UNIT

PAPER NUMBER

2836

MAIL DATE

DELIVERY MODE

02/13/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/550,147	Applicant(s) SUZUKI, MITSUNARI	
	Examiner MICHAEL RUTLAND WALLIS	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8-11 and 15-17 is/are rejected.
- 7) ☒ Claim(s) 5-7 and 12-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/07/05 11/05/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 8-11, 15-16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wasaki et al. (U.S. Pat. No. 6,987,430) in view of Barsellotti et al. (U.S. Pat. No. 6,177,849)

With respect to claims 1, 8 and 17 Wasaki teaches a power line terminating circuit (see for example Fig. 9) provided at terminations of a pair of indoor power lines (items 1a, 1b) where a high frequency signal in a communication frequency band is superimposed on an AC power source voltage (see abstract), comprising: a first capacitor (item 31) provided between the pair of indoor power lines to suppress fluctuations of a capacitive load (item 80) in an electric device (item 80) connected to the terminations of the indoor power lines; one or more inductors (item 32) provided on the indoor power lines and configuring a series resonance circuit (formed with the combination of items 32 and item 31) in cooperation with the first capacitor; and one or more resistors (item 21) respectively provided in parallel with each of the inductors (item 32) and having a resistance value corresponding (col. 11 lines 65-67) to a characteristic

impedance of the indoor power lines. Wasaki does not teach the resonance point of the series resonant circuit. Barsellotti teaches (col. 1 lines 53-63) a resonance circuit wherein the resonant point should be about 1 to 5 kHz to remove unwanted noise while not affecting the communications or power signals. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Wasaki to configure the series resonance point in a frequency which is higher than a frequency of the AC power source voltage and is lower than the communication frequency band in order to obtain better performance and attenuation for the frequencies with noise.

With respect to claims 2, 9 Wasaki teaches wherein an impedance of the inductor at the lower limit frequency of the communication frequency band is equal to or larger than twice of the resistance value of the resistor (col. 13 lines 5-10).

With respect to claim 3 and 10 Wasaki teaches wherein the inductor is provided on only one of the pair of indoor power lines 9 (see connection in Fig. 1 and 9).

With respect to claims 4 and 11 Wasaki teaches comprising a second capacitor (item 22) provided in series with the resistor and configuring a parallel resonance circuit in cooperation with the inductor, wherein the parallel resonance circuit has a parallel resonance point in a frequency band which is higher than the series resonance point and is lower than the communication frequency band.

With respect to claim 15-16 Wasaki teaches at least a pair of communication device connection sockets which are directly connected to the pair of connection plugs and to which a power source plug of a communication device can be plugged in (see connection pairing shown in Fig. 1).

Allowable Subject Matter

Claims 5-7 and 12-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: Wasaki as modified above teaches the power line terminating, relay device and method as recited above, however fails to further teach the further limitation of second inductors or the sum of the resistance values of the first and second resistors corresponds to a characteristic impedance of the indoor power lines, and the first and second inductors configure the series resonance circuit in cooperation with the first capacitor. At least this further limitation is not taught or rendered obvious by the prior art of record.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Rutland-Wallis whose telephone number is 571-272-5921. The examiner can normally be reached on Monday-Thursday 7:30AM-6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Michael J Sherry/
Supervisory Patent Examiner, Art Unit 2836

MRW